

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002851**Date Inspected:** 09-Jun-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Chih-Ming / Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG side, bottom and deck panels**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance Inspector (QA) Steve Hall was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island, in Shanghai, China. QA observed and/or found the following:

OBG new assembly bay 2

QA observed ZPMC personnel fitting floor beam FL1 north at panel point PP-021 OBG segment 3AE.

QA observed ZPMC qualified welding personnel tack welding side panel weld joint SEG-023A-003.

QA observed ZPMC qualified welding personnel perform SAW on SEG-026-006 SP-333 to SP-306 following the guide lines of WPS# WPS-B-T-2221-B-L2c-S-1. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

Volts: 30.7 Amps: 538 Travel speed: 440mm/min

QA observed ZPMC qualified welding personnel perform FCAW root weld on SEG-019A-031 SP-028 to SP-019 following the guide lines of WPS# WPS-B-T-2231-B-U2-F-1. QC monitored the welding process continuously throughout the evening. The welding parameters as measured with Quality Controls calibrated instruments appeared to be in conformance with the posted WPS's and were as follows:

---

# WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

---

Volts: 29 Amps: 267 Travel speed: 495mm/min

QA observed ABF QA inspector identified as Dave Laru spot check CJP welds on floor beam FB-022-02 previously found to be non-compliant with contract documents using the Ultrasonic Testing method (UT). Mr. Laru scanned approximately 150mm to 200mm of two web plate splice welds identified as FB-022-02-101 and FB-022-02-081. Mr. Laru suspected that the indications may be weld cap indications and told this QA that he would suggest to ZPMC that they grind the weld caps flush and UT the areas again.

Other general observations include ZPMC personnel grinding side and bottom panels and weld bevel prep.

## OBG Bay 1

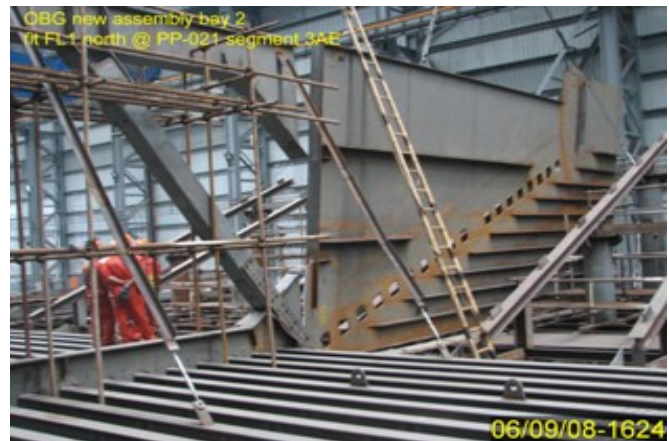
QA noted that ZPMC has completed GMAW and SAW welding on deck panels DP-601-001 and DP-551-001 on gantry 1.

QA observed ZPMC qualified welding personnel FCAW U-Rib diaphragms in U-Ribs U52 and U45.

QA observed ZPMC QC Magnetic particle Testing (MT) technicians examining the tack welds on deck panels DP-597-001 and DP-552-001 using the MT method.

Other general observations by QA were as follows:

QA observed ZPMC has approximately 60-70 workers performing various functions relative to the fabrication of the OBG Deck Panels. These functions include; closed rib press forming, hole drilling at ends of U-Ribs using a drill template, PJP bevel preparation, closed rib splice FCAW welding, closed rib diaphragm fit-up and FCAW welding, closed rib to deck plate fit-up and tack welding.



## Summary of Conversations:

Only general conversations were held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858)-344-2712, who represents the Office of Structural Materials for your project.

---

## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

---

---

<b>Inspected By:</b>	Hall,Steven	Quality Assurance Inspector
<b>Reviewed By:</b>	Cuellar,Robert	QA Reviewer

---